

## CLAIMS

1. A framework for providing information technology solutions, the framework comprising:
  - a first knowledge base of characteristics that describe products and functions, wherein a combination of products performs a set of functions;
  - a second knowledge base that manages relationship information regarding the interactions of products and defines all valid product combinations, wherein each valid product combination forms a network unit; and
  - a third knowledge base that manages information regarding the interconnectability of network units, wherein a valid combination of network units comprises a configuration.
2. The framework of claim 1, wherein the first knowledge base of characteristics includes generic characteristics that describe a set of products or functions having similar characteristics.
3. The framework of claim 1, wherein the second knowledge base includes generic network units that describe a set of network units that perform similar functions.
4. The framework of claim 1, further comprising a fourth knowledge base that includes clouds, wherein each cloud describes a set of possible configurations that can fulfill a predetermined function.

1 5. The framework of claim 1, wherein each configuration comprises at least one network unit  
2 partnership.

1 6. The framework of claim 1, further comprising a key word search engine that allows  
2 characteristics to be searched.

1 7. The framework of claim 1, further comprising a solution knowledge base, wherein each  
2 solution includes a set of customer specific configurations.

1 8. The framework of claim 7, further comprising a box knowledge base that includes a product  
2 listing for each solution in the solution knowledge base.

1 9. The framework of claim 8, further comprising a network knowledge base that includes a set of  
2 boxes.

1 10. The framework of claim 9, further comprising a customer knowledge base that includes  
2 customer specific information.

1 11. The framework of claim 4, further comprising a solution advisor tool for designing a  
2 solution made up of a set of network units, the solution advisor tool comprising:  
3 a system for specifying the solution using a selected cloud;  
4 a system for replacing the selected first cloud with a set of clouds;  
5 a system for replacing the selected cloud with at least one configuration;  
6 a system for replacing a selected configuration with at least one network unit; and  
7 a system for replacing a generic network unit with a specific network unit.

1 12. The framework of claim 11, wherein the solution advisor tool further comprises a system for  
2 replacing a generic characteristic with a specific characteristic.

1 13. A solution advisor tool for designing an information technology (IT) solution, comprising:  
2 a knowledge management system for generating and storing information in a hierarchical  
3 format, wherein the knowledge management system includes:  
4 a first knowledge base of characteristics;  
5 a second knowledge base that manages relationship information regarding the  
6 interactions of characteristics and defines all valid characteristic combinations, wherein  
7 each valid characteristic combination forms a network unit;  
8 a third knowledge base that manages information regarding the interconnectability  
9 of network units, wherein a valid combination of network units comprises a  
10 configuration; and  
11 a fourth knowledge base that manages information regarding sets of possible  
12 configurations that can fulfill a predetermined function, wherein each set comprises a  
13 cloud; and  
14 a design interface system for generating the IT solution, comprising:  
15 a system for specifying the solution using a first cloud;  
16 a system for replacing the first cloud with a set of second clouds;  
17 a system for replacing a selected cloud with at least one configuration;  
18 a system for replacing a selected configuration with at least one network unit; and  
19 a system for replacing a generic network unit with a specific network unit.

1 14. The solution advisor tool of claim 13, further comprising a fifth database of keywords.

1 15. The solution advisor tool of claim 13, further comprising a sixth knowledge base of valid  
2 network unit partners.

1 16. The solution advisor tool of claim 13, wherein the characteristics comprise products and  
2 functions.

1 17. The solution advisor tool of claim 13, characteristics comprise generic products and specific  
2 products.

1 18. The solution advisor tool of claim 17, wherein the design interface further includes a system  
2 for replacing generic products with specific products.

1 19. A program product stored on a recordable medium, which when executed provides a system  
2 for generating an information technology solution, comprising:

3 a system for specifying a generic solution using a cloud selected from a plurality of  
4 clouds, wherein each cloud provides a set of possible configurations that can fulfill a  
5 predetermined function, and wherein each configuration includes a valid set of network units,  
6 and wherein each network unit comprises a set of characteristics;

7 a system for replacing the cloud with at least one second cloud, wherein the at least one  
8 second cloud includes a more specific set of configuration details;

9 a system for replacing a selected cloud with at least one configuration;

10 a system for replacing a selected configuration with at least one network unit; and

11 a system for replacing a generic network unit with a specific network unit.

12 20. The program product of claim 19, further comprising a system for replacing generic  
13 characteristics with specific characteristics.

14 21. The program product of claim 19, wherein the set of characteristics include products and  
15 functions.

16 22. The program product of claim 19, wherein the program product further includes a system for  
17 storing and managing information regarding the clouds, configurations, network units and  
18 characteristics.

1 23. A solution advisor tool for generating an information technology solution, comprising:  
2 a cloud knowledge base that includes a plurality of clouds, wherein each cloud provides a  
3 set of possible configurations that can fulfill a predetermined function, and wherein each  
4 configuration includes a valid set of network units, and wherein each network unit comprises a  
5 set of compatible characteristics; and  
6 a system for designing a solution using clouds selected from the cloud knowledge base.

1 24. The solution advisor tool of claim 23, wherein the cloud knowledge base includes business  
2 need clouds that contain application cloud network units and application gateway network units.

3 25. The solution advisor tool of claim 23, wherein the cloud knowledge base includes  
4 application clouds that contain transport cloud network units and transport gateway network  
5 units.

6 26. The solution advisor tool of claim 23, wherein the cloud knowledge base includes transport  
1 clouds that contain bridged cloud network units, subnetwork cloud network units and subnetwork  
2 gateway network units.

3 27. The solution advisor tool of claim 23, wherein the cloud knowledge base includes bridged  
4 clouds that contain subnetwork cloud network units and subnetwork gateway network units.

1 28. The solution advisor tool of claim 23, wherein the cloud knowledge base includes  
2 subnetwork clouds which contain gateway network units.

1 29. The solution advisor tool of claim 23, further comprising:

2 a system for combining characteristics stored in a characteristic knowledge base to  
3 generate the set of network units, wherein the set of network units are stored in a network unit  
4 knowledge base; and

5 a system for combining network units stored in the network unit knowledge base to  
6 generate the possible configurations, wherein the possible configurations are stored in a  
7 configuration knowledge base.